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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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02/15/2005

Francesco Bonfanti

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EXAMINER

HIGGINS, GERARD T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

02/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,592	Applicant(s) BONFANTI ET AL.	
	Examiner GERARD T. HIGGINS	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-22 and 24-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-22 and 24-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The response filed 12/17/2008 has been entered. Currently claims 20-22 and 24-33 are pending and claim 23 is cancelled.

2. The amendment filed 12/17/2008 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the concept of a "stamping gap" was not present in the specification as filed and does not necessarily flow from the drawings.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 20-22 and 24-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With regard to claims 20-22 and 24-33 and particularly claims 20 and 27, the concept of "at least one stamped gap," "several of the at least one stamped gap," and "several stamped gaps" were not present in the specification as originally filed; furthermore, the limitations do not necessarily flow from the drawings. It has been held that when an explicit limitation in a claim "is not present in the written description whose benefit is sought it must be shown that a person of ordinary skill would have understood, at the time the patent application was filed, that the description **requires** that limitation" (emphasis added). *Hyatt v. Boone*, 146 F.3d 1348, 1353, 47 USPQ2d 1128, 1131 (Fed. Cir. 1998).

With further regard to claims 20 and 27, the Examiner does not find support for the limitation that the at least one stamped gap has "a continuous width across a length of the at least one stamped gap" in the specification as originally filed. In fact, applicants' Figures teach away from this limitation as the width at the intersection of two stamped gaps that are arranged at right angles (dividing lines **3** and **4**) is clearly wider than between two square electrodes. Additionally, the fact that there are webs means that the stamped gap does not have a continuous width.

With regard to claim 28, the Examiner does not find support for the limitation "between two adjacently positioned ones" in this context. Please note that the language of original claim 12 and amended claim 20 do not provide support for this limitation because those refer to individual webs and not the collective width of all webs.

With regard to claims 25 and 29, the Examiner does not find support for the concept of "in a second direction" in the specification as originally filed.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 20-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites the limitation "the width" in the sixth line of the claim. There is insufficient antecedent basis for this limitation in the claim. Perhaps applicants meant "the continuous width."

In claims 24 and 27 there is the limitation "**several** of the at least **one**." This is an extremely confusing phraseology and the Examiner suggests using the language from page 3, lines 10-18. The words "several" and "one" are contradictory, and therefore the phrase "several of the at least one" renders this claim indefinite. It is impossible to have one, yet also have several. This limitation also renders the claims indefinite because now it is unclear in combination whether each of the stamped gaps must have a regular pattern of webs.

Claim 24 recites the limitation "said several stamped gaps" in the third, sixth, and seventh lines of the claim. There is insufficient antecedent basis for this limitation in the claim.

In claims 25 and 29 there is the limitation "**several** of the at least **one**." This is an extremely confusing phraseology and the Examiner suggests using the language from page 3, lines 19-26. The words "several" and "one" are contradictory, and therefore the phrase "several of the at least one" renders this claim indefinite. It is impossible to have one, yet also have several. This limitation also renders the claims indefinite because now it is unclear in combination whether each of the stamped gaps must have a regular pattern of webs.

With further regard to claims 25 and 29, it is unclear how the stamped film can have several stamped gaps that extend perpendicularly to one another, and also have stamped gaps that have a "continuous width across a length of the at least one stamped gap." The width at the intersection of two stamped gaps that are arranged at right angles (dividing lines **3** and **4**) is clearly wider than between two square electrodes, and therefore these claims are indefinite.

Claim 25 recites the limitation "said several stamped gaps" in the third and fifth lines of the claims. There is insufficient antecedent basis for this limitation in the claim.

Claim 27 recites the limitation "said several stamped gaps" in the ninth and tenth lines of the claims. There is insufficient antecedent basis for this limitation in the claim.

Claim 29 recites the limitation "said several stamped gaps" in the second, third lines of the claims. There is insufficient antecedent basis for this limitation in the claim.

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Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 20, 21, 24, 26-28, 30, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grawey et al. (5,055,734) in view of Mitarai et al. (US 2002/0053860).

With regard to claims 20, 24, and 27, Grawey et al. disclose the devices of Figures 1 and 2.

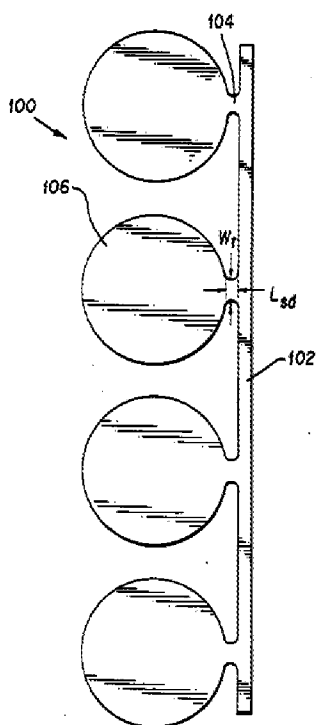


FIG. 1

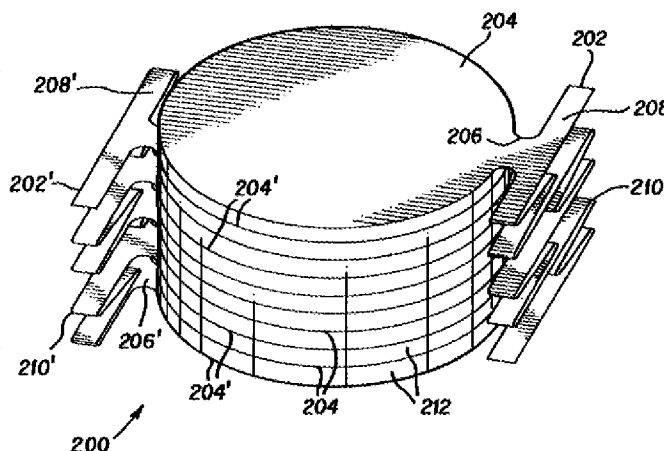


FIG. 2

The film of Figure 1 has a dividing line that stretches vertically in between the parts **102** and **106**, which is interrupted by the webs **104**. It is clear from the figure that the webs have a width that is, on average, less than an average spacing between adjacent webs. The parallel dividing lines to which applicants are referring to in claims 24 and 27 would fall in between the parts **106** of Grawey et al., i.e. in the x-direction in Figure 1 above (left-to-right on the paper). Therefore, the mirror plane spoken of in applicants' claim 27 would be in the y-direction (up-and-down) and it clear that performing a reflection about said mirror plane of the device of Figure 1 would generate a device that would not be superimposable. The device of Figure 2 reads on the at least two stamped films superimposed in a staggered arrangement relative to one another of claim 20. Two of the same devices of Figure 1 of Grawey et al. are arranged such that the webs are not superimposed in alternating layers; however, Grawey et al. fail to disclose electrode portions **106** that are square, which would then read on applicants' limitation that the stamped gap has a continuous width across the length of the at least one stamped gap.

Mitarai et al. disclose square shaped electrodes for piezoelectric stacks, see Figures 10 and 11, [0099], and [0100].

Since Grawey et al. and Mitarai et al. are both drawn to piezoelectric electrode stacks; it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the electrodes of Grawey et al. in the shape of a square as taught by Mitarai et al. There are numerous shapes of electrodes for piezoelectric stacks; further, these shapes are interchangeable, and one of ordinary skill would use the shape necessary for the intended use of the device.

After having made the electrode **106** into the shape of a square, it would have been equally clear to one of ordinary skill in the art to use additional webs **104** to connect the square electrode to the strip **102** because it would result in a device that would be more sturdy and would have a lower likelihood of the electrode breaking off. This device then formed would read on applicants' at least one stamped gap with a continuous width across the length of the at least one stamped gap because the area in between an individual square electrode **106** and the strip **102** would read on applicants' at least one stamped gap. That at least one stamped gap would be interrupted by a regular pattern of multiple webs. Given the fact that the stamped gaps are co-linear, they are therefore parallel.

With regard to claim 21, it is clear from Figure 2 that the alternating layers are arranged to differ by 180° of rotation.

With regard to claim 28, it is clear from Figure 1 and 2 that the width of all the webs, respectively, is less than the spacing to said adjacent webs.

With regard to claims 26 and 30, it is clear that a 180° rotation performed on the device of Figure 1 would generate a device that would not be superimposable with the original device.

With regard to claim 32, the device of Grawey et al. is designed as a "multiple electrode conductor for piezoelectric solid state motor stacks" (col. 1, lines 9-11). Cathodes or anodes are electrodes and therefore this anticipates applicants' claim 32.

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9. Claims 22 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grawey et al. (5,055,734) in view of Mitarai et al. (US 2002/0053860), as applied to claims 20 and 27, respectively, and further in view of Bechtel et al. (6,402,328).

Grawey et al. in view of Mitarai et al. disclose the limitations of applicants' claims 20 and 27 as seen in section 8 above. They also disclose the use of the aforementioned devices as a transducer, more specifically an actuator; however, they fail to specifically disclose the use of said devices as either an electrochemical or electrochromic device.

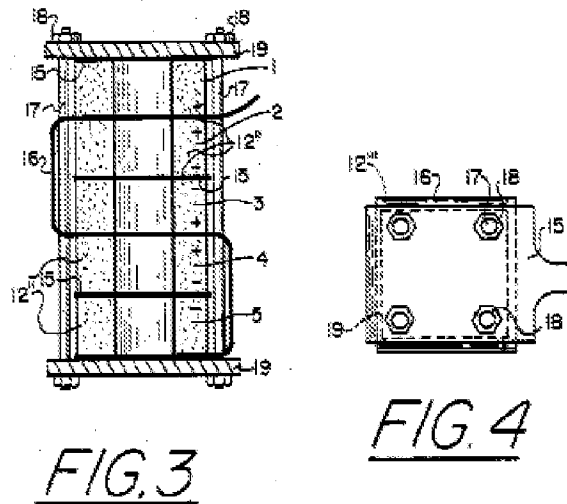
Bechtel et al. disclose the use of transducers in the field of electrochromic automatic dimming rearview mirrors (col.2, lines 22-24).

Both Grawey et al. in view of Mitarai et al. and Bechtel et al. are drawn to transducers, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the known device of Grawey et al. in view of Mitarai et al. in an electrochromic device such as the one described by Bechtel et al. The combined device would have produced predictable results to one having ordinary skill in the art.

10. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grawey et al. (5,055,734) in view of Mitarai et al. (US 2002/0053860), as applied to claim 27, and further in view of Abbott (4,499,566).

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Grawey et al. in view of Mitarai et al. disclose all the limitations of applicants' claim 27 in section 8 above; however, it fails to disclose positioning holes. Abbott discloses the transducer stack seen in Figures 3 and 4.



The transducer stack comprises 2-4 positioning rods **17** (col. 4, lines 3-9), which obviously must have positioning holes for the positioning rod to go through said transducer stack.

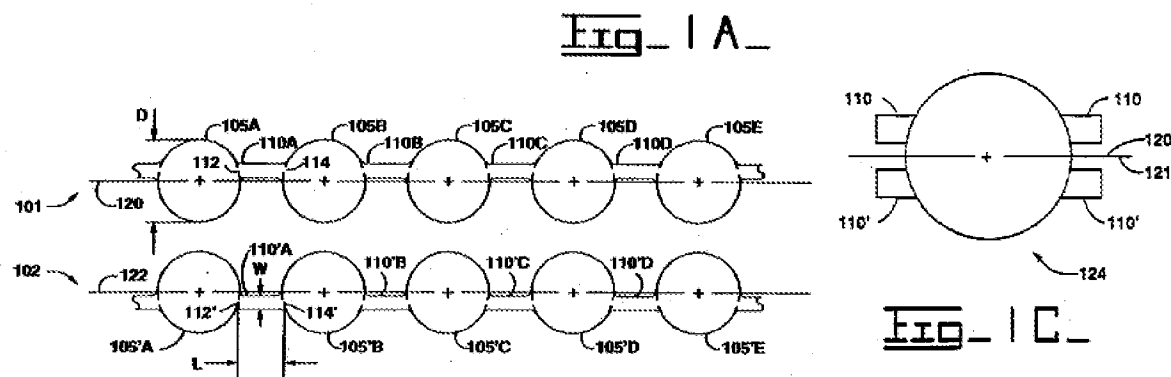
Both Grawey et al. in view of Mitarai et al. and Abbott are drawn to transducer assemblies; therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the known prior art element of positioning holes in the transducer assembly of Grawey et al. in view of Mitarai et al. Each element would have performed the same function as it did separately, and the results of this combination would produce predictable results to one having ordinary skill in the art. The motivation for doing so would be to provide a stable structure that would not wear down or shift position over time.

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11. Claims 20, 21, 24-30, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitarai et al. (US 2002/0053860) in view of Swanson et al. (5,155,409).

With regard to claims 20, 24, and 27, Mitarai et al. teach square shaped electrodes for piezoelectric stacks alongside circular disc electrodes, see Figures 9-11 and [0098] to [0100]; however, they fail to teach the electrode arrangement of applicants' claims 20, 24, and 27.

Swanson et al. teach the piezoelectric actuator arrangement using first and second single-piece conductors **101** and **102** of Figures 1A and 1C.



An individual single-piece conductor reads on applicants' stamped film. The interwoven films illustrated in Figure 1C read on applicants' film arrangement. The distance 'L' reads on applicants' at least one stamped gap. It is clear from the Figures that there are multiple stamped gaps that define various parallel stamped gaps (i.e. **110A**, **110B**, **110C**, etc.). The lines **120** and **122** illustrate applicants' claimed mirroring the stamped film at a mirror plane that intersects the stamped film centrally and perpendicularly to said stamped gaps. Figure 1A illustrates the fact that the mirror image of the first

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single-piece conductor will not be superimposable on the second single-piece conductor.

Since Mitarai et al. and Swanson et al. are both drawn to piezoelectric stacks; it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the asymmetric design of Swanson et al. with the square electrodes of Mitarai et al. The results of such a combination would have been predictable to one having ordinary skill. The motivation for using the asymmetric design of Swanson et al. is to allow one single-piece conductor to be manufactured that could be used for both the anode or cathode film of the actuator, while still having a reduced chance of short circuiting. Additionally, it is noted by Swanson et al. that this arrangement would be more easily put together (col. 2, lines 50-52).

Having established that it would have been obvious to use the design framework of Swanson et al. on the square electrodes of Mitarai et al.; it would have been equally clear to one of ordinary skill in the art to use additional webs **110A**, **110B**, **110C**, etc. to connect the electrodes to each other because it would result in a device that would be sturdier and would have a lower likelihood of breakage. In forming these additional webs, one of ordinary skill in the art would recognize making them asymmetric, analogous to the original webs shown by Swanson et al. This would represent a mere duplication of parts, of which it has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). This device then formed would read on applicants' at least one stamped gap with a

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continuous width across the length of the at least one stamped gap because the area in between individual square electrodes **105A** and **105B** would read on applicants' at least one stamped gap (i.e. the region defined by the distance 'L'). That at least one stamped gap would be interrupted by a regular pattern of multiple webs. Each of the stamped gap regions corresponding to the area 'L' would be parallel.

With regard to claim 21, it is clear from Figures 1A and 1C that the alternating layers are arranged to differ by 180° of rotation.

With regard to claim 28, it is clear from Figure 1A that the width of all the webs, respectively, is less than the spacing to said adjacent webs.

With regard to claims 26 and 30, it is clear that a 180° rotation performed on the device **101** would generate a device that would not be superimposable with the original device **102**. This is the design of the invention

With regard to claim 32, the devices of Mitarai et al. and Swanson et al. are both for use as electrodes in piezoelectric devices. Cathodes or anodes are electrodes and therefore this renders obvious applicants' claim 32.

With regard to claims 25 and 29, this is also a duplication of parts. It has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). In this sense applicants are duplicating the entire electrode assembly (i.e. **101**) in three-dimensions (i.e. y-axis, or up and down on the paper). Producing electrodes in three-dimensions would not produce a new and unexpected result; furthermore, it would have been obvious to produce this three-

dimensional network electrode with the same asymmetry in the y-direction as is present in the x-direction of Figure 1A above. The reason for doing this would to provide a single electrode that could be assembled with great ease and little time required.

Swanson et al. teach the usage of asymmetric connectors to provide ease of construction of an assembled device, while still only being required to produce one type of assembly. This would serve to save money in productions costs and would have been obvious to one having ordinary skill.

12. Claims 22 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitarai et al. (US 2002/0053860) in view of Swanson et al. (5,155,409), as applied to claims 20 and 27, respectively, and further in view of Bechtel et al. (6,402,328).

Mitarai et al. in view of Swanson et al. disclose the limitations of applicants' claims 20 and 27 as seen in section 11 above. They also disclose the use of the aforementioned devices as a transducer, more specifically an actuator; however, they fail to specifically disclose the use of said devices as either an electrochemical or electrochromic device.

Bechtel et al. disclose the use of transducers in the field of electrochromic automatic dimming rearview mirrors (col.2, lines 22-24).

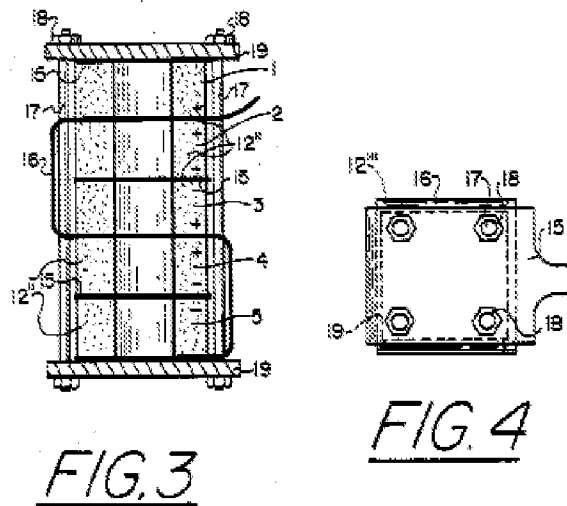
Both Mitarai et al. in view of Swanson et al. and Bechtel et al. are drawn to transducers, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the known device of Mitarai et al. in view of Swanson et al. in an electrochromic device such as the one described by Bechtel et al.

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The combined device would have produced predictable results to one having ordinary skill in the art.

13. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mitarai et al. (US 2002/0053860) in view of Swanson et al. (5,155,409), as applied to claim 27, and further in view of Abbott (4,499,566).

Mitarai et al. in view of Swanson et al. disclose all the limitations of applicants' claim 27 in section 11 above; however, it fails to disclose positioning holes. Abbott discloses the transducer stack seen in Figures 3 and 4.



The transducer stack comprises 2-4 positioning rods **17** (col. 4, lines 3-9), which obviously must have positioning holes for the positioning rod to go through said transducer stack.

Both Mitarai et al. in view of Swanson et al. and Abbott are drawn to transducer assemblies; therefore, it would have been obvious to one having ordinary skill in the art

at the time the invention was made to use the known prior art element of positioning holes in the transducer assembly of Mitarai et al. in view of Swanson et al. Each element would have performed the same function as it did separately, and the results of this combination would produce predictable results to one having ordinary skill in the art. The motivation for doing so would be to provide a stable structure that would not wear down or shift position over time.

Response to Arguments

14. Applicant's arguments filed 12/17/2008 have been fully considered but they are not persuasive.

Applicants have amended claims 24, 25, 27, and 29 to overcome the rejections under 35 U.S.C. 112, second paragraph, and believe they have successfully rendered the rejections moot.

The Examiner respectfully disagrees with regard to the abovementioned claims, and notes that the phrase “**several** of the at least **one**” is awkward and indefinite. It is unclear how there can be “several” and “one” stamped gap.

15. Applicant's arguments with respect to claims 20-22 and 24-33 have been considered but are moot in view of the new ground(s) of rejection.

Applicants have added the new limitation that there is at least one stamped gap that defines the dividing line, and that “the at least one stamped gap has a continuous

width across a length of the at least one stamped gap.” This was not present in the original claims and was not considered by the Examiner.

The Examiner has rejected the claims by making the electrode parts in the reference of Grawey et al. of a square shape. Square shaped electrodes are well-known to one of ordinary skill in the art of piezoelectric stacks, and would have been obvious to make in the assembly of Grawey et al. These square electrodes would have had a continuous width throughout the stamped gap between the electrode **106** and the strip **102**.

With regard to the Michalik reference, the Examiner finds applicants' arguments persuasive and has therefore withdrawn the rejections based upon the Michalik reference.

The Examiner has found a new reference in Mitarai et al. and Swanson et al. which together show asymmetric webs connecting electrode portions. The Examiner has made the combination of Mitarai et al. and Swanson et al., and has establish that it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the asymmetric design of Swanson et al. with the square electrodes of Mitarai et al. The results of such a combination would have been predictable to one having ordinary skill. The motivation for using the asymmetric design of Swanson et al. is to allow one single-piece conductor to be manufactured that could be used for both the anode or cathode film of the actuator, while still having a reduced chance of short circuiting. Additionally, it is noted by Swanson et al. that this arrangement would be

more easily put together (col. 2, lines 50-52); further, given the fact that only one type of single-piece conductor would need to be manufactured, this design would save money.

This asymmetric design of Swanson et al. is the crux of applicants' invention, and it would have been obvious to duplicate the number of webs in the stamped gaps present; furthermore, it would have also been obvious to duplicate the entire single-piece conductor in three-dimensions (i.e. y-axis, or up and down on the paper). It has been held that "mere duplication of parts has no patentable significance unless a new and unexpected result is produced." Please see MPEP 2144.04 and *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). In this sense applicants are duplicating the entire electrode assembly (i.e. **101**) in three-dimensions (i.e. y-axis, or up and down on the paper). Producing electrodes in three-dimensions would not produce a new and unexpected result; furthermore, it would have been obvious to produce this three-dimensional network electrode with the same asymmetry in the y-direction as is present in the x-direction of Figure 1A above. The reason for doing this would to provide a single electrode that could be assembled with great ease and little time required. Swanson et al. teach the usage of asymmetric connectors to provide ease of construction of an assembled device, while still only being required to produce one type of assembly. This would serve to save money in productions costs and would have been obvious to one having ordinary skill.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERARD T. HIGGINS whose telephone number is (571)270-3467. The examiner can normally be reached on M-F 9:30am-7pm est. (1st Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gerard T Higgins
Examiner
Art Unit 1794

/Gerard T Higgins/
Examiner, Art Unit 1794

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794